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at least one data driver integrated circuit (IC) connected to the data lines for driving the data lines, each data driver IC arranged on a same one of a top side portion and a bottom side portion of the liquid crystal panel.

REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the subject application. The Non-Final Office Action of January 30, 2003 has been received and contents carefully reviewed.

In the Office Action, the Examiner rejected claims 1-3, 6, and 10-13 under 35 U.S.C. §103(a) as being unpatentable over the related art illustrated in Figures 3 and 4 in view of Terumoto (U.S. Pat. No. 5,530,570); and rejected claims 4, 5, 14, and 15 under 35 U.S.C. §103(a) as being unpatentable over the related art illustrated in Figures 3 and 4 in view of Terumoto and further in view of Shiba et al. (U.S. Pat. No. 5,526,014). The rejections of these claims are traversed and reconsideration of the claims is respectfully requested in view of the following remarks.

The rejection of claims 1-3, 6, and 10-13 under 35 U.S.C. §103(a) as being unpatentable over the related art illustrated in Figures 3 and 4 in view of Terumoto is traversed and reconsideration is respectfully requested.

Independent claim 1 is allowable over the cited art in that claim 1 recites a combination of elements including, for example, "a liquid crystal panel having a plurality of gate and data lines and a plurality of sub-pixels, ... wherein each sub-pixel is defined by the gate and data lines and corresponds to a color filter that has one of red, green, blue and white colors, wherein color filters along the same data line have the same color, wherein adjacent

ones of color filters along the same gate line have different colors, and wherein a black matrix is arranged between each color filter.” None of the cited references including the related art illustrated in Figures 3 and 4 or Terumoto, singly or in combination, teaches or suggest at least this feature of the claimed invention. Accordingly, Applicant respectfully submits that independent claim 1 and claims 2-6, which depend therefrom, are allowable over the cited references.

Independent claim 10 is allowable over the cited art in that claim 10 recites a combination of elements including, for example, “a first substrate having deposited thereon a plurality of color filters and a black matrix arranged between each of the color filters..., a second substrate... having... a plurality of sub-pixels each formed at an intersection of one of the gate lines and data lines... wherein each sub-pixel corresponds to one of the color filters, wherein color filters along the same data lines have the same color, and wherein adjacent ones of color filters along the same gate line have different colors.” None of the cited references including the related art illustrated in Figures 3 and 4 or Terumoto, singly or in combination, teaches or suggest at least this feature of the claimed invention. Accordingly, Applicant respectfully submits that independent claim 10 and claims 11-15, which depend therefrom are allowable over the cited references.

Applicants believe the application in condition for allowance and early, favorable action is respectfully solicited. Should the Examiner deem that a telephone conference would further the prosecution of this application, the Examiner is invited to call the undersigned attorney at (202) 496-7500.

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If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136. Please credit any overpayment to deposit Account No. 50-0911.

Respectfully submitted,

MCKENNA LONG & ALDRIDGE, LLP

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By



Rebecca Goldman Rudich
Registration No. 41,786

Kurt M. Eaton
Registration No. 51,640

1900 K Street, N.W.
Washington, D.C. 20006
Telephone No.: (202) 496-7500
Facsimile No.: (202) 496-7756

MARKED-UP VERSION OF THE AMENDED CLAIMS

1. (AMENDED) A liquid crystal display device, comprising:

a liquid crystal panel having a plurality of gate and data lines and a plurality of sub-pixels, wherein the gate lines are arranged in a transverse direction and the data lines are arranged in a longitudinal direction, wherein each sub-pixel is defined by the gate and data lines and corresponds to a [stripe-shaped] color filter that has one of red, green, blue and white colors, wherein color filters along the same data line have the same color, wherein adjacent ones of color filters along the same gate line have different colors, and wherein a black matrix is arranged [among] between each [the stripe-shaped] color filter[s];

a gate driver integrated circuit (IC) connected to the plural gate lines for driving the gate lines, the gate driver IC arranged on a first side portion of the liquid crystal panel; and

a data driver integrated circuit (IC) connected to the plural data lines for driving the data lines, the data driver IC arranged on a second side portion of the liquid crystal panel.

10. (AMENDED) A liquid crystal display device, comprising:

a liquid crystal panel, comprising,

a first substrate having deposited thereon a plurality of [stripe-shaped] color filters and a black mask arranged [around] between each of the [stripe-shaped] color filters, wherein each color filter has one of red, green, blue and white colors,

a second substrate disposed opposing the first substrate and having a plurality of gate lines arranged in a transverse direction, a plurality of data lines arranged in a longitudinal direction, and a plurality of sub-pixels each formed at an intersection of one of the gate lines and data lines, and

a liquid crystal material deposited between the first and second substrates,
wherein each sub-pixel corresponds to one of the [strip-shaped] color filters,
wherein color filters along the same data lines have the same color, and wherein adjacent
ones of color filters along the same gate line have different colors;

at least one gate driver integrated circuit (IC) connected to the gate lines for driving
the gate lines, each gate driver IC disposed on a same side portion of the liquid crystal panel;
and

at least one data driver integrated circuit (IC) connected to the data lines for driving
the data lines, each data driver IC arranged on a same one of a top side portion and a bottom
side portion of the liquid crystal panel.